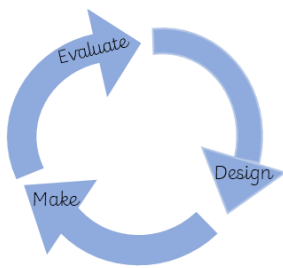


# DT

## Progression Pathways



Design,  
make and  
evaluate

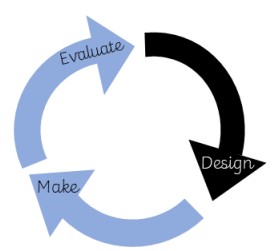


Food



Technical  
Knowledge

# Design....



Year 1

- Design appealing products for a particular user based on simple design criteria.
- Develop and communicate these ideas through talk and drawings and mock ups where relevant.

Year 2

- Generate ideas based on simple design criteria and their own experiences, explaining what they could make.
- Develop, model and communicate their ideas through talking, mock-ups and drawings.

Year 3

- Generate realistic ideas through discussion and design criteria for an appealing, functional product fit for purpose and specific user/s.
- Use annotated sketches, final product sketches and computer-aided design to develop and communicate ideas.

Year 4

- Generate and clarify ideas through discussion with peers to develop design criteria to inform the design of products that are fit for purpose, aimed at particular individuals or groups.
- Generate, develop, model and communicate realistic ideas through discussion and, as appropriate, use annotated sketches, cross-sectional diagrams, pattern pieces and appropriate computer-aided technology, such as web-based recipes, to develop and communicate ideas.

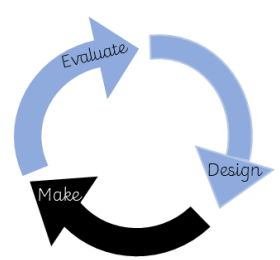
Year 5

- Generate innovative ideas through research including surveys, web-based resources and discussion with peers to develop a design brief and criteria for a design specification.
- Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification.
- Develop and communicate ideas through discussion, annotated drawings, exploded drawings and pictorial representations of electric circuits and, where appropriate, computer-aided design.

Year 6

- Use research using surveys, interviews, questionnaires and web-based resources. to develop a design specification for a range of functional products.
- Develop a simple design specification to guide the development of their ideas and products, taking account of constraints including time, resources and cost.
- Generate and develop innovative ideas and share and clarify these through discussion.
- Communicate ideas through annotated sketches, cross-sectional diagrams and diagrams from different view points.

# Make....



## Year 1

- Select and use simple utensils, tools and equipment to perform a job e.g. peel, cut, slice, squeeze, grate and chop safely; marking out, cutting, joining and finishing; cut, shape and join paper and card.
- Select new and reclaimed materials and construction kits to build and create their products.

## Year 2

- Plan by suggesting what to do next.
- Select and use tools, equipment, skills and techniques to perform practical tasks, explaining their choices.
- Select from a range of ingredients and materials according to their characteristics to create a chosen product.
- Use simple finishing techniques suitable for the products they are creating.

## Year 3

- Order the main stages of making.
- Select from and use a range of appropriate utensils, tools and equipment to measure, mark out, cut, score, shape and combine with some accuracy related to their products.
- Select from and use finishing techniques suitable for the product they are creating.

## Year 4

- Plan the main stages of making.
- Select and use appropriate tools to measure, mark out, cut, score, shape and combine with some accuracy related to their products.
- Explain their choice of materials according to functional properties and aesthetic qualities.
- Select from and use materials and components, including ingredients, fabric and electrical components according to their function and properties.

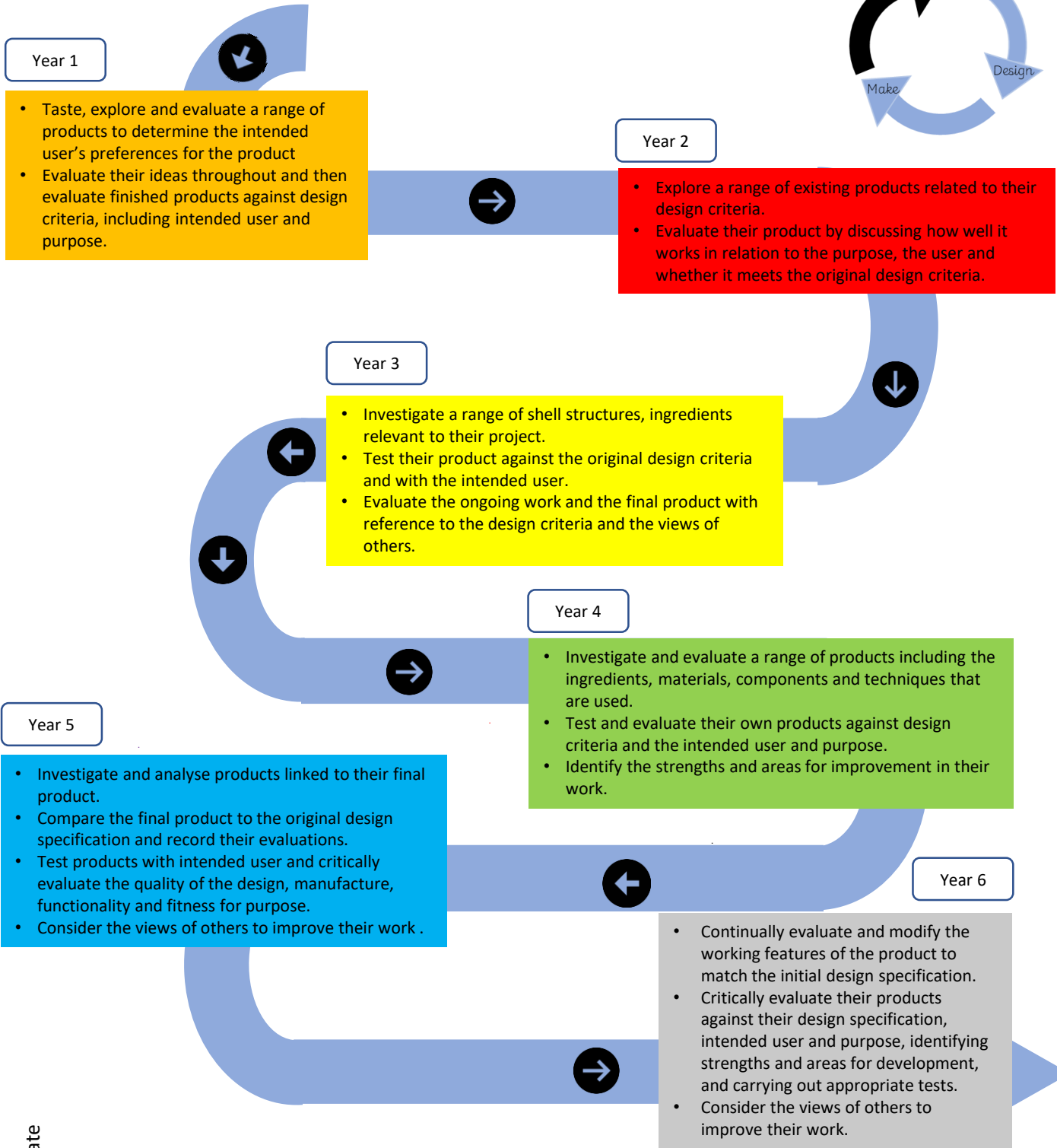
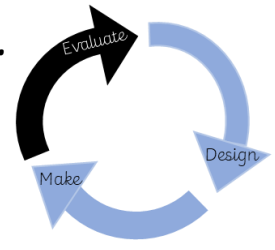
## Year 5

- Produce lists of equipment and tools required for their tasks.
- Plan the main stages of making.
- Select from and use, a range of appropriate utensils, tools and equipment accurately to measure and combine appropriate ingredients, materials and resources and securely connect electrical components to produce functional products.

## Year 6

- Formulate a plan to guide making, listing tools, equipment, materials and components.
- Competently select from and use appropriate tools to accurately measure, mark, cut and assemble materials to produce reliable and functional products.
- Use finishing and decorative techniques suitable for the product they are designing and making.

# Evaluate....



Year 1

- Taste, explore and evaluate a range of products to determine the intended user's preferences for the product
- Evaluate their ideas throughout and then evaluate finished products against design criteria, including intended user and purpose.

Year 2

- Explore a range of existing products related to their design criteria.
- Evaluate their product by discussing how well it works in relation to the purpose, the user and whether it meets the original design criteria.

Year 3

- Investigate a range of shell structures, ingredients relevant to their project.
- Test their product against the original design criteria and with the intended user.
- Evaluate the ongoing work and the final product with reference to the design criteria and the views of others.

Year 4

- Investigate and evaluate a range of products including the ingredients, materials, components and techniques that are used.
- Test and evaluate their own products against design criteria and the intended user and purpose.
- Identify the strengths and areas for improvement in their work.

Year 5

- Investigate and analyse products linked to their final product.
- Compare the final product to the original design specification and record their evaluations.
- Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose.
- Consider the views of others to improve their work .

Year 6

- Continually evaluate and modify the working features of the product to match the initial design specification.
- Critically evaluate their products against their design specification, intended user and purpose, identifying strengths and areas for development, and carrying out appropriate tests.
- Consider the views of others to improve their work.

Vocabulary for design, make and evaluate

|  |  |  |  |  |   |
|--|--|--|--|--|---|
| <p>Year 1</p> <p>planning, investigating design, evaluate, make, user, purpose, ideas, product</p> | <p>Year 2</p> <p>investigating, planning, design, make, evaluate, user, purpose, ideas, design criteria, product, function</p> | <p>Year 3</p> <p>user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, function, planning, design criteria, iterative, appealing</p> | <p>Year 4</p> <p>evaluating, design brief, design criteria, innovative, prototype, user, purpose, function</p> | <p>Year 5</p> <p>appealing, design brief, planning, annotated sketch, design decisions, functionality, user, purpose, design criteria, innovative, research, evaluate, prototype</p> | <p>Year 5</p> <p>function, innovative, design criteria, design brief, user, purpose, prototype, annotated sketch, purpose, research, functional, mock-up, prototype</p> |
|--|--|--|--|--|---|



Year 1 and 2

- Understand where a range of fruit and vegetables come from e.g. farmed or grown at home.
- Understand and use basic principles of a healthy and varied diet to prepare dishes.

Year 3 and 4

- Know how to use appropriate equipment and utensils to prepare and combine food.
- Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught.
- Understand the principles of a healthy and varied diet.

Year 5

- Know how to use utensils and equipment including heat sources to prepare food.
- Know where and how a variety of ingredients are grown, reared, caught or processed relating to their product.

Year 6

- Know how to use utensils and equipment including heat sources to prepare and cook food.
- Understand about seasonality, in relation to food products, and the sources of different food products – including food that can be locally sourced.



## Structures

Year 1

- Build structures, including using construction equipment, exploring how they can be made stronger, stiffer and more stable.

Year 2

- Build structures using a combination of wood and card, exploring how they can be made stronger, stiffer and more stables.

Year 3

- Develop and use knowledge of how to construct strong, stiff shell structures.
- Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes.

Year 5

- Understand how to strengthen, stiffen and reinforce 3-D frameworks.

## Textiles

Year 2

- Finger puppets
- Understand how simple 3-D textile products are made, using a template to create two identical shapes.
  - Understand how to join fabrics using different techniques e.g. running stitch, glue, stapling.
  - Explore different finishing techniques

Year 4

- Decorative Cushion cover
- Understand how to securely join two pieces of fabric together.
  - Understand the need for patterns and seam allowances.
  - Explore and use a variety of stitches – both practical and decorative

Year 6

- Teddies for YR buddy
- Produce a 3-D textile product from a combination of accurately made pattern pieces, fabric shapes and different fabrics.
  - Understand how fabrics can be strengthened, stiffened and reinforced where appropriate.



## Mechanisms including electrical systems

Year 1

- Explore and use sliders and levers.
- Understand that different mechanisms produce different types of movement

Year 3

- Explore, create and use a pulley system/lever and linkage
- Understand the different parts of a pulley system/distinguish between fixed and loose pivots.

Year 4

- Apply their understanding of computing to program and control their products.

Year 5

- Understand and use electrical systems in their products linked to science coverage.

Year 6

- Explore and use cams/gears.
- Understand how cams/gears can be used to change the direction of movement.